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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SPOONER, LAMONT M

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/991,079	Applicant(s) TSOURIKOV ET AL.	
	Examiner LAMONT M. SPOONER	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Introduction

1. This office action is in response to applicant's claims filed 5/6/08.

Claims 1-20 are currently pending and have been examined.

Response to Arguments

2. Applicant's arguments, see remarks, filed 5/6/08, with respect to the rejection(s) of claim(s) 1-20 under 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

However, upon further consideration, a new ground(s) of rejection is made in view of Messerly (US 6,246,977).

Claim Objections

3. Claims 1, 12 and 20 objected to because of the following informalities: In claim 1, line 9, "X" is not properly defined in the claim.

Claims 12 and 20 have similar issues.

In claim 1, line 29, "devices" should probably be - - device - -.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 8, 12, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Messerly (US 6,246,977) in view of Ishikawa (US 5,848,407).

As per **claims 1 and 12**, Messerly teaches a system enabling a user to ask a question (query) and for providing the user with one or more answers or solutions to such question, the system comprising:

a knowledge base comprising a set of answers having the form S-A-O (subject- action-object) (Fig. 13-his index... the form of the index by token indicate S-A-O forms, see C.45-66-which explain each appended reserved character to each token, the tokens in the index are in the searchable, S-A-O form, see also C.14 lines 22-26-his explicit statement of S-A-O, logical form construction knowledgebase), and further comprising links to documents corresponding to the set of answers (Fig. 13 item 1320-his link to document/document number);

a problem statement generator configured to receive a natural language query from a user apparatus (C.6 lines 50-53-his natural language query, Fig. 5 items 510-550-his problem statement generated)

and to automatically generate a problem statement in the form A- O, S-A, S-X-0 or S, where S, A and 0 are query elements in the natural language query (ibid, wherein the problem statements contain the S, A, O of the query elements from the natural language query, i.e, man, kiss, pig-Fig 5 item 550);

a server coupled to the knowledge base, the server configured to (fig. 2 item 200);

search the knowledge base using the problem statement to find at least one S-A-O answer, wherein the A and 0, or S and A, or S and 0 or S query elements in the problem statement are also in the at least one S-A-O answer (C.5 lines 53-56-his generated problem statement from the query in the form of S-A-O are processed against the index, wherein the index contain query elements); and

a communication devices configured to transmit the at least associated document links to the user apparatus (C.13 lines 59-62, his ranked list/link to the matching, associated document, Fig. 2-item 200 including his apparatus).

Messerly does not explicitly teaches transmitting the at least one answer S-A-O and associated document links.

However, Ishikawa teaches displaying keyword and associated document links (Fig. 7). Therefore, at the time of the invention, it would have been obvious to one ordinarily skilled in the art to modify Messerly's displaying of his ranking result by including also the S-A-O (or keyword/answers terms), providing the benefit of on a single page identifying the actual keyword terms associated with the documents retrieved (see Ishikawa Fig. 7).

As per **claims 2 and 13**, Messerly and Ishikawa make obvious a system as set forth in claim 1. Messerly further teaches wherein said server is configured to conduct a search, identify documents that include new answer S-A-O's each comprising query elements in the problem statement, store links to such documents, and add such new answer S-A-O's to the knowledge base (Fig. 2 item 223-his internet, C.5 lines 34-42-his generation of S-A-O's from these target documents, see claim 1, stored links discussion).

Messerly does not explicitly teach wherein said server is configured to conduct a search of the World Wide Web (see above cited section, discussing his searched documents, and S-A-O generation). However, the Examiner notes that Messerly input (Fig. 2 items 200, and 223) provide

access to the Internet. The Examiner takes official notice that the Internet contains a plurality of documents. Therefore, at the time of the invention, it would have been obvious to one ordinarily skilled in the art to modify the combination of Ishikawa with Messerly to include the World Wide Web as the source of the documents used by Messerly, providing the benefit of a vast amount of pre-generated target documents to be processed by Messerly's S-A-O system.

As per **claim 8**, Messerly and Ishikawa make obvious a system as set forth in claim 1. Messerly further teaches wherein said user apparatus includes a user digital computer for generating said problem statement and receiving said at least one answer S-A-O (Fig. 2 item 200, see claim 1 S-A-O discussion).

As per **claim 11**, Messerly and Ishikawa make obvious system as set forth in claim 1, wherein each of the at least one answer S-A-Os is represented in a sentence format (C.14 lines 14, 15).

6. Claims 3 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Messerly in view of Ishikawa as applied to claim 1 above, and further in view of Hatton (US 6,269,356).

As per **claims 3 and 14**, Messerly and Ishikawa make obvious claim 2, however the combination lacks wherein the server is also configured to conduct said search automatically in response to the server determining that no answer S-A-O's exist in the knowledge base comprising the query elements in the problem statement.

However Hatton teaches conducting said search automatically in response to the server determining that no answer exist in the knowledge base comprising the query elements in the problem statement (Fig. 5. his problem statement into the user interface, C.1 .lines 15, 16-his query, C.2 lines 7-15- the no element match, automatically provides search), but lacks said server conducts the search.. Therefore, at the time of the invention, it would have been obvious to combine Ishikawa and Messerly's S-A-O, and matching query elements in his problem statement with Hatton's determination that not answer exists, and automatic search and applicant's background, thus providing the benefit of automatically search expansion thus providing an expanded source of information for search to resolve a problem/query.

7. Claims 4 and 15, are rejected under 35 U.S.C. 103(a) as being unpatentable over Messerly in view of Ishikawa as applied to claim 2 above, and further in view of Lamberti et al. (Lamberti, 5,377,103).

As per **claims 4 and 15**, Messerly and Ishikawa make obvious claim 2, but lack explicitly teaching wherein said server is programmed to prompt the user for a command to initiate the search of the World Wide Web. However, Lamberti et al. teach wherein said server is programmed to prompt the user for a command to initiate a search (col. 6, lines 4-26). Therefore, at the time of the invention, it would have been obvious to one ordinarily skilled in the art to modify the combination of Ishikawa with Messerly and further with Lamberti's query for initiating the search, the motivation being to reduce the potential for error before searching.

8. Claims 5-7, 9-10, 16-19, are rejected under 35 U.S.C. 103(a) as being unpatentable over Messerly in view of Ishikawa as applied to claim 1 above, and further in view of Johnson (5,748,974).

As per **claim 5**, Messerly and Ishikawa make obvious claim 1, but the combination does not explicitly teach wherein user apparatus converts human voice signals into said problem statement. However, this feature is well known in the art as evidenced by Johnson who teach a multimodal

natural language interface that enables users to combine natural language (spoken, typed or handwritten) using a speech recognizer to convert the speech signal into text at the abstract and figure 2 (his speech input).

Therefore, one having ordinary skill in the art at the invention was made would have it obvious to incorporate into the combination of Ishikawa and Messerly's information retrieval system (his generated problem statement), a speech recognizer because it allow expand the capability of the system by allowing user to enter their input speaking it that would facilitate users who cannot type.

As per **claims 6-7, 9-10 and 16-19**, Johnson further teaches wherein user apparatus converts into audio signals (his output response generator 54, abstract and Fig. 2), including voice-to-text an text-to-voice recognition capability. Therefore, one having ordinary skill in the art at the invention was made would have it obvious to incorporate into the combination of Ishikawa and Messerly's information retrieval system (at least one S-A-O answers, and problem statement generator, see claim 1), audio response because it allows expanse towards the capability of the system by facilitating users who prefer audio communication.

9. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Messerly in view of Levin et al. (Levin, US 6,173,279).

As per **claim 20**, Messerly teaches a method of providing one or more solutions in response to a user query, the method comprising:

providing a knowledge base of semantically and automatically processed information including a set of answers in the form of S-A-O's (subject-action-object), and further comprising links to documents corresponding to the set of answers (see claim 1, also C.2 lines 54, 55);

processing a natural language user query at a user device, including generating a problem statement in the form A-O, S-A, S-X-O or S from the natural language user query (see claim 1), where S, A and O are query elements in the natural language query (ibid), converting the problem statement into a query (see claim 1), and sending the query to a semantic server having access to the knowledge base (see claim 1, Fig. 2 item 200).

generating a knowledge base query from the query at the semantic server and search the knowledge base for one or more S-A-O solutions associated with the problem statement;

Messerly lacks teaching URL query, and processing the url..., an HTML page to the user device, processing the at least one HTML page ...to

output a solution to the user query. However, Levin et al. teaches URL query, and processing the url..., an HTML page to the user device, processing the at least one HTML page ...to output a solution to the user query (C.6.1lines 13-55). Therefore, at the time of the invention, it would have been obvious to modify Messerly with Levin's Web search query system, providing the benefit of natural language query through a plurality of data resources, including the Web (Levin, abstract).

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the

mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAMONT M. SPOONER whose telephone number is (571)272-7613. The examiner can normally be reached on 8:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on 571/272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

lms
7/28/08

/Patrick N. Edouard/
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